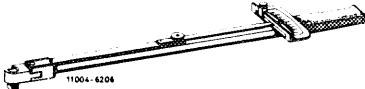
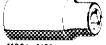
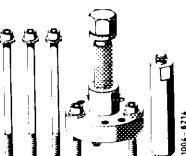
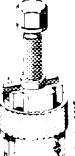
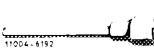
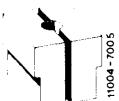


03-350 Removal and installation of crankshaft sprocket

Tightening torques	Nm
Bolt M 18 x 1.5 x 45 on crankshaft	400–450
Bolts and capped nuts for cylinder head cover	5
Special tools	
Torque wrench 150–500 Nm (15–50 kpm), 3/4" square	 001 589 31 21 00
Socket 27 mm, 1/2" square	 001 589 65 09 00
Detent	 110 589 00 40 00
Detent	 116 589 01 40 00
Puller for balancing disc	 116 589 10 33 00
Puller for spacing ring	 102 589 00 33 00
Crankshaft sprocket extractor	 615 589 01 33 00
Bearing pin impact extractor (basic unit)	 116 589 20 33 00
Threaded pin M 6 x 50 for impact extractor	 116 589 01 34 00
Threaded pin M 10 x 100 for impact extractor	 116 589 03 34 00
Stud socket 10 mm, 1/2" square, 140 mm long	 000 589 05 07 00
Radial oil seal installer	 110 589 07 61 00

Chain tensioner holder



110 589 02 31 00

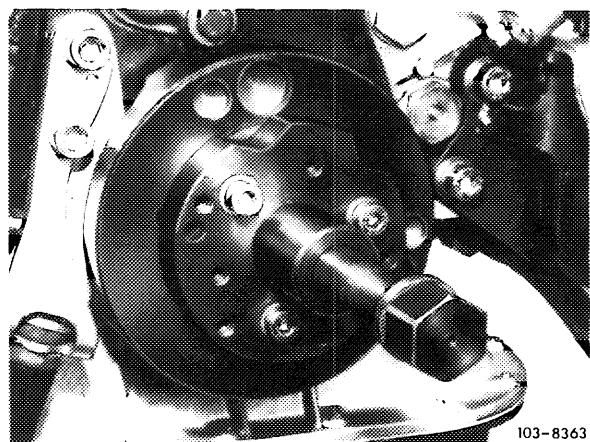
Knocking-out mandrel 9 mm dia



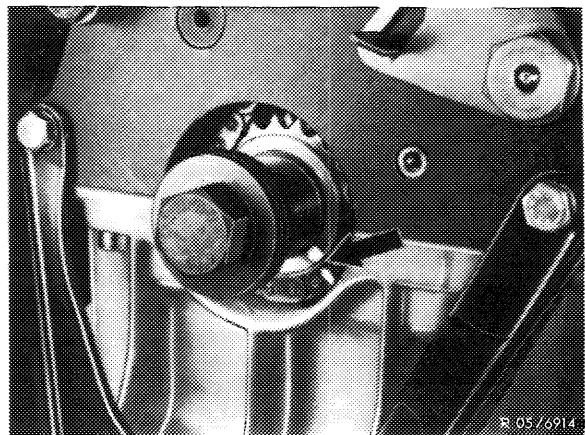
110 589 02 15 00

Removal

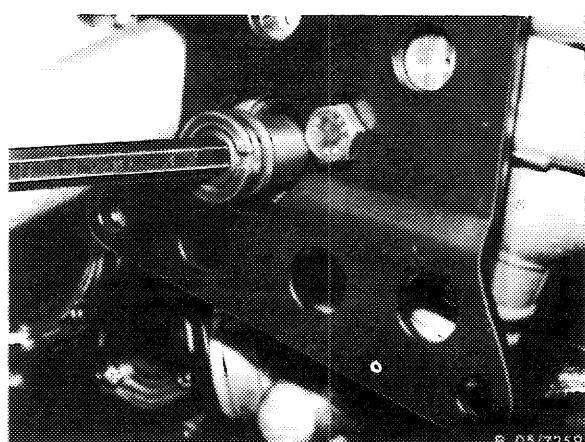
- 1 Remove radiator and fan.
- 2 Remove front crankshaft radial oil seal (03-324).



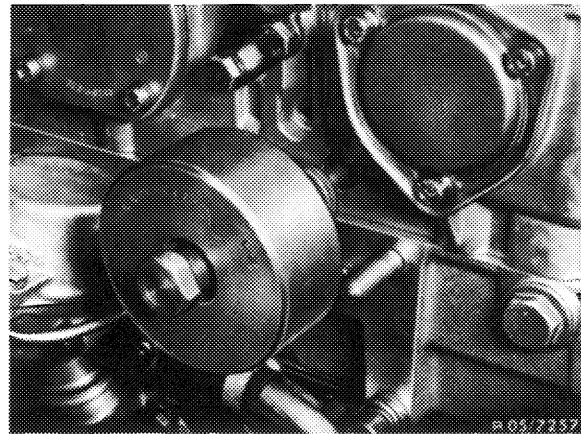
- 3 Use paint to mark both camshaft sprockets and camshaft sprocket to timing chain (arrow).



- 4 Remove chain tensioner (05-310).



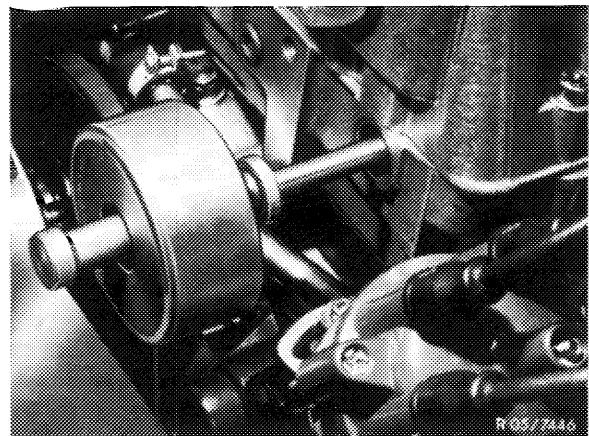
5 Remove guide rail in camshaft housing.



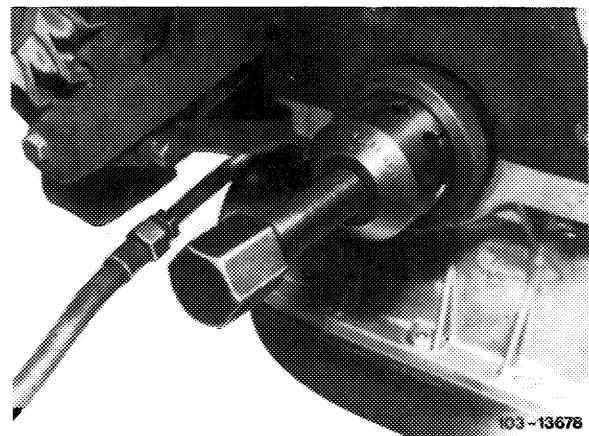
6 Remove reversing wheel. This requires unscrewing the plug and knocking out the bearing pin with an impact extractor (M 10 threaded pin).

7 Remove reversing wheel with a wire hook upward.

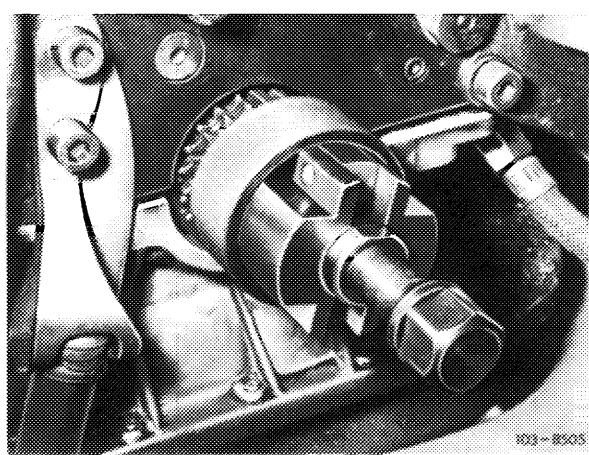
8 Remove oil pan to an extent that the timing chain can be taken off of the crankshaft sprocket.



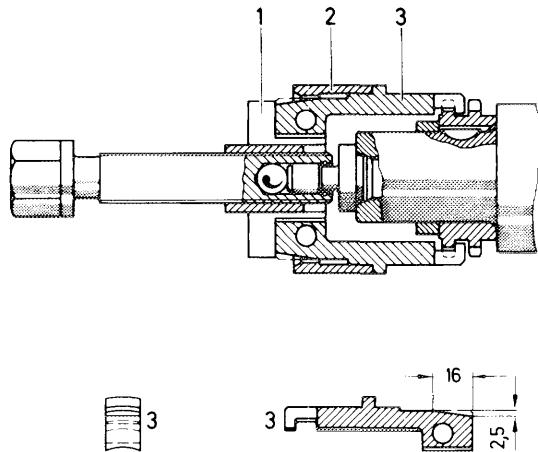
9 Pull-off spacing ring with puller.



10 Pull off crankshaft sprocket with an extractor.

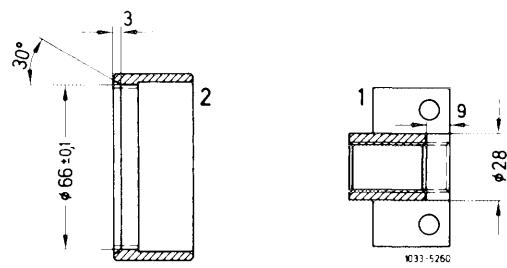


Note: Change puller 615 589 01 33 00 to dimensions shown in drawing.



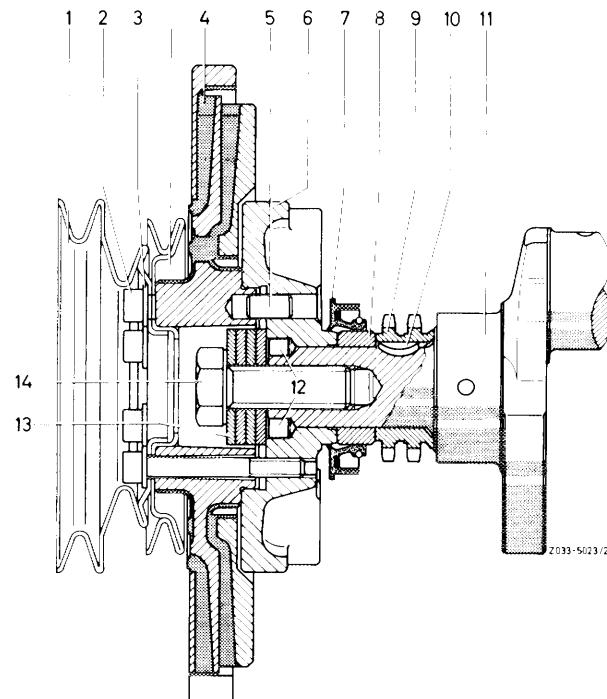
Installation

11 Transfer color marks from old to new crankshaft gear.



12 Heat crankshaft gear on a hot plate (approx. 80 °C) and slip on crankshaft.

13 Slip spacing ring on crankshaft.



14 For further installation proceed vice versa, paying attention to pertinent color marks.